10271-037 (Sheet 1 of									
Met Ser Asn Lys As	ac gtc aat gta sn Val Asn Val	agg aaa tcg cag gaa at Arg Lys Ser Gln Glu Il 10	a aca toc 48 e Thr Pie 15						
tgc ttg ctg gca gg Cys Leu Leu Ala G 20	gt atc ctg atg y Ile Leu Met	ttc atg gca atg atg gt Phe Met Ala Met Met Va 25 3	l Ala Gly						
cgc gct gaa gcg gc Arg Ala Glu Ala Gl 35	ga gtg gcc tta y Val Ala Leu 40	ggt gcg act cgc gta at Gly Ala Thr Arg Val Il 45	t tat ccg 144 e Tyr Pro						
gca ggg caa aaa ca Ala Gly Gln Lys Gl 50	a gtg caa ctt n Val Gln Leu 55	gcc gtg aca aat aat ga Ala Val Thr Asn Asn As 60	t gaa aat 192 p Glu Asn						
agt acc tat tta at Ser Thr Tyr Leu II 65	t caa tca tgg e Gln Ser Trp 70	gtg gaa aat gcc gat gg Val Glu Asn Ala Asp Gl 75	t gta aag 240 y Val Lys 80						
Asp Gly Arg Phe Il	c gtg acg cct e Val Thr Pro 5	cct ctg ttt gcg atg aa Pro Leu Phe Ala Met Ly 90	g gga aaa 288 s Gly Lys 95						
aaa gag aat acc tt Lys Glu Asn Thr Le 100	a cgt att ctt u Arg Ile Leu	gat gca aca aat aac ca Asp Ala Thr Asn Asn Gl 105 11	n Leu Pro						
cag gac cgg gaa ag Gln Asp Arg Glu Se 115	t tta ttc tgg r Leu Phe Trp 120	atg aac gtt aaa gcg at Met Asn Val Lys Ala Il 125	t cog tda 384 e Pro Ser						
atg gat aaa tca aa Met Asp Lys Ser Ly 130	a ttg act gag s Leu Thr Glu 135	aat acg cta cag ctc gc Asn Thr Leu Gln Leu Al 140	a att atc 432 a Ile I!e						
agc cgc att aaa ct Ser Arg Ile Lys Le 145	g tac tat cgc u Tyr Tyr Arg 150	ccg gct aaa tta gcg tt Pro Ala Lys Leu Ala Le 155	g cca ccc 480 u Pro P o 1.0 /						
gat cag gcc gca ga Asp Gln Ala Ala Gl 16	u Lys Leu Arg	ttt cgt cgt agc gcg aa Phe Arg Arg Ser Ala As 170	t tot o'g 528 n Ser L u 175						
acg ctg att aac co Thr Leu Ile Asn Pr 180	g aca ccc tat o Thr Pro Tyr	tac ctg acg gta aca ga Tyr Leu Thr Val Thr Gl 185 19	u Leu Ann						
gcc gga acc cgg gt Ala Gly Thr Arg Va 195	t ctt gaa aat 1 Leu Glu Asn 200	gca ttg gtg cct cca at Ala Leu Val Pro Pro Me 205	g ggc gaa 624 t Gly G u						
agc acg gtt aaa tt Ser Thr Val Lys Le 210	g cct tct gat u Pro Ser Asp 215	gca gga agc aat att ac Ala Gly Ser Asn Ile Th 220	t tac cqa 672 r Tyr Alg						
aca ata aat gat ta Thr Ile Asn Asp Ty 225	t ggc gca ctt r Gly Ala Leu 230	acc ccc aaa atg acg gg Thr Pro Lys Met Thr Gl 235	c gta a g 720 y Val Mot 240						
gaa taa Glu			726						

Figure 1A

```
Met Ser Asn Lys Asn Val Asn Val Arg Lys Ser Gln Glu Ile Thr Phe
                                 10
Cys Leu Leu Ala Gly Ile Leu Met Phe Met Ala Met Met Val Ala Gly
                            25
Arg Ala Glu Ala Gly Val Ala Leu Gly Ala Thr Arg Val Ile Tyr Pro
                         40
                                            45
Ala Gly Gln Lys Gln Val Gln Leu Ala Val Thr Asn Asn Asp Glu Asn
                      55
Ser Thr Tyr Leu Ile Gln Ser Trp Val Glu Asn Ala Asp Gly Val Lys
                  70
                                     75
Asp Gly Arg Phe Ile Val Thr Pro Pro Leu Phe Ala Met Lys Gly Lys
            85
                                90
Lys Glu Asn Thr Leu Arg Ile Leu Asp Ala Thr Asn Asn Gln Leu Pro
                            105
Gln Asp Arg Glu Ser Leu Phe Trp Met Asn Val Lys Ala Ile Pro Ser
 115 120 125
Met Asp Lys Ser Lys Leu Thr Glu Asn Thr Leu Gln Leu Ala Ile Ile
                                     140
                      135
Ser Arg Ile Lys Leu Tyr Tyr Arg Pro Ala Lys Leu Ala Leu Pro Pro
                  150
                                     155
Asp Gln Ala Ala Glu Lys Leu Arg Phe Arg Arg Ser Ala Asn Ser Leu
              165 170
                                                   175
Thr Leu Ile Asn Pro Thr Pro Tyr Tyr Leu Thr Val Thr Glu Leu Asn
          180
                             185
                                                190
Ala Gly Thr Arg Val Leu Glu Asn Ala Leu Val Pro Pro Met Gly Glu
       195
                         200
Ser Thr Val Lys Leu Pro Ser Asp Ala Gly Ser Asn Ile Thr Tyr Arg
                   215
                                     220
Thr Ile Asn Asp Tyr Gly Ala Leu Thr Pro Lys Met Thr Gly Val Met
225
                  230
                                     235
Glu
```

Figure 1B

10271-037 (Sheet 3 of 36)										
atg aaa cga gtt att acc ctg ttt gct gta ctg ctg atg ggc Met Lys Arg Val Ile Thr Leu Phe Ala Val Leu Leu Met Gly -20 -15 -10										
gta aat gcc tgg tca ttc gcc tgt aaa acc gcc aat ggt acc Val Asn Ala Trp Ser Phe Ala Cys Lys Thr Ala Asn Gly Thr -5 -1 1 5										
cct att ggc ggt ggc agc gcc aat gtt tat gta aac ctt gcg Pro Ile Gly Gly Ser Ala Asn Val Tyr Val Asn Leu Ala 15 20 25	2									
gtg aat gtg ggg caa aac ctg gtc gtg gat ctt tcg acg caa Val Asn Val Gly Gln Asn Leu Val Val Asp Leu Ser Thr Gln 30 35 40										
tgc cat aac gat tat ccg gaa acc att aca gac tat gtc aca Cys His Asn Asp Tyr Pro Glu Thr Ile Thr Asp Tyr Val Thr 45 50 55										
cga ggc tcg gct tat ggc ggc gtg tta tct aat ttt tcc ggg Arg Gly Ser Ala Tyr Gly Gly Val Leu Ser Asn Phe Ser Gly 60 65 70										
aaa tat agt ggc agt agc tat cca ttt cct acc acc agc gaa Lys Tyr Ser Gly Ser Ser Tyr Pro Phe Pro Thr Thr Ser Glu 80 85										
cgc gtt gtt tat aat tcg aga acg gat aag ccg tgg ccg gtg Arg Val Val Tyr Asn Ser Arg Thr Asp Lys Pro Trp Pro Val 95 100 105										
tat ttg acg cct gtg agc agt gcg ggc ggg gtg gcg att aaa Tyr Leu Thr Pro Val Ser Ser Ala Gly Gly Val Ala Ile Lys 110 115 120										
tca tta att gcc gtg ctt att ttg cga cag acc aac aac tat Ser Leu Ile Ala Val Leu Ile Leu Arg Gln Thr Asn Asn Tyr 125 130 135										
gat gat ttc cag ttt gtg tgg aat att tac gcc aat aat gat Asp Asp Phe Gln Phe Val Trp Asn Ile Tyr Ala Asn Asn Asp 140 145										
gtg cct act ggc ggc tgc gat gtt tct gct cgt gat gtc acc Val Pro Thr Gly Gly Cys Asp Val Ser Ala Arg Asp Val Thr 160 165										
ctg ccg gac tac cct ggt tca gtg cca att cct ctt acc gtt Leu Pro Asp Tyr Pro Gly Ser Val Pro Ile Pro Leu Thr Val 175 180 185	Tyr ('ys									

Figure 1C

gcg Ala	aaa Lys	agc Ser 190	caa Gln	aac Asn	ctg Leu	Gly ggg	tat Tyr 195	tac Tyr	ctc Leu	tcc Ser	ggc Gly	aca Thr 200	acc Thr	gca Ala	cat Asp	672
gcg Ala	ggc Gly 205	aac Asn	tcg Ser	att Ile	ttc Phe	acc Thr 210	aat Asn	acc Thr	gcg Ala	tcg Ser	ttt Phe 215	tca Ser	cct Pro	gca Ala	Cag Cln	720
ggc Gly 220	gtc Val	ggc Gly	gta Val	cag Gln	ttg Leu 225	acg Thr	cgc Arg	aac Asn	ggt Gly	acg Thr 230	att Ile	att Ile	cca Pro	gcg Ala	aat Asn 235	768
aac Asn	acg Thr	gta Val	tcg Ser	tta Leu 240	gga Gly	gca Ala	gta Val	Gly	act Thr 245	tcg Ser	gcg Ala	gtg Val	agt Ser	ctg Leu 250	gga Gly	816
tta Leu	acg Thr	gca Ala	aat Asn 255	tat Tyr	gca Ala	cgt Arg	acc Thr	gga Gly 260	ggg Gly	cag Gln	gtg Val	act Thr	gca Ala 265	ggg Gly	aat Asn	864
gtg Val	caa Gln	tcg Ser 270	att Ile	att Ile	ggc Gly	gtg Val	act Thr 275	ttt Phe	gtt Val	tat Tyr	caa Gln	taa				903

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Met Lys Arg Val Ile Thr Leu Phe Ala Val Leu Leu Met Gly Trp {er
                      -15
Val Asn Ala Trp Ser Phe Ala Cys Lys Thr Ala Asn Gly Thr Ala Ile
       -1 1
                                  5
Pro Ile Gly Gly Ser Ala Asn Val Tyr Val Asn Leu Ala Pro Val
           15
                               20
Val Asn Val Gly Gln Asn Leu Val Val Asp Leu Ser Thr Gln Ile Phe
                           35
Cys His Asn Asp Tyr Pro Glu Thr Ile Thr Asp Tyr Val Thr Leu Gln
                       50
Arg Gly Ser Ala Tyr Gly Gly Val Leu Ser Asn Phe Ser Gly Thr Val
                   65
                                       70
Lys Tyr Ser Gly Ser Ser Tyr Pro Phe Pro Thr Thr Ser Glu Thr Pro
                80
                                   85
Arg Val Val Tyr Asn Ser Arg Thr Asp Lys Pro Trp Pro Val Ala Leu
                                    105
           95
                           100
Tyr Leu Thr Pro Val Ser Ser Ala Gly Gly Val Ala Ile Lys Ala Gly
              115
Ser Leu Ile Ala Val Leu Ile Leu Arg Gln Thr Asn Asn Tyr Asn Ser
                      130
                                 135
Asp Asp Phe Gln Phe Val Trp Asn Ile Tyr Ala Asn Asn Asp Val Val
                  145
                                      150
Val Pro Thr Gly Gly Cys Asp Val Ser Ala Arg Asp Val Thr Val Thr
               160
                                  165
Leu Pro Asp Tyr Pro Gly Ser Val Pro Ile Pro Leu Thr Val Tyr Cys
           175
                              180
Ala Lys Ser Gln Asn Leu Gly Tyr Tyr Leu Ser Gly Thr Thr Ala Asp
                         195
Ala Gly Asn Ser Ile Phe Thr Asn Thr Ala Ser Phe Ser Pro Ala Gln
                      210
                                         215
Gly Val Gly Val Gln Leu Thr Arg Asn Gly Thr Ile Ile Pro Ala Asn
                                      230
                   225
Asn Thr Val Ser Leu Gly Ala Val Gly Thr Ser Ala Val Ser Leu Cly
               240
                                  245
Leu Thr Ala Asn Tyr Ala Arg Thr Gly Gly Gln Val Thr Ala Gly Isn
                           260
          255
Val Gln Ser Ile Ile Gly Val Thr Phe Val Tyr Gln
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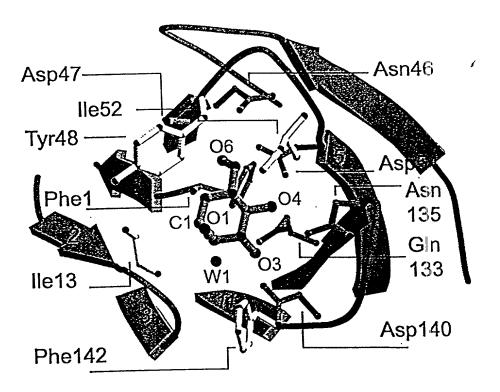
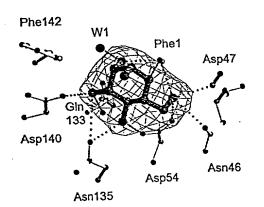
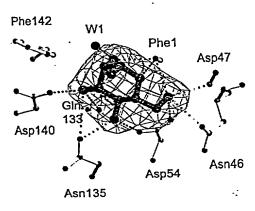


Figure 2 Sheet 6 of 36

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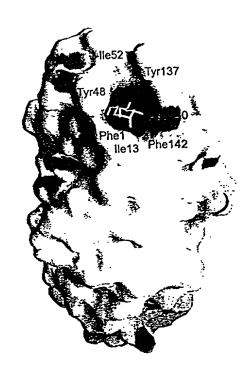


Figure 2 Sheet 7 of 36

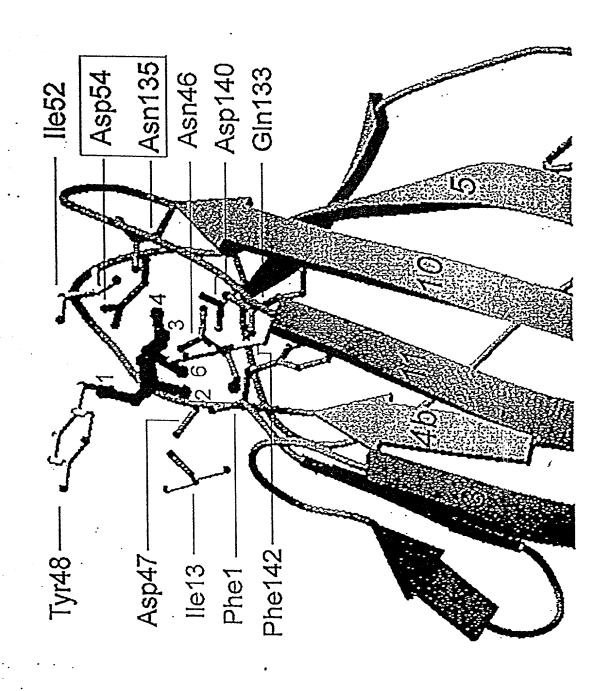


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J96 EC45 B217 DS17 B212 EC42 EC42 EC42 B228 B228 B228 B228 EC60 EC58 EC60 EC60 EC60

Figure 3 Sheet 9 of 36

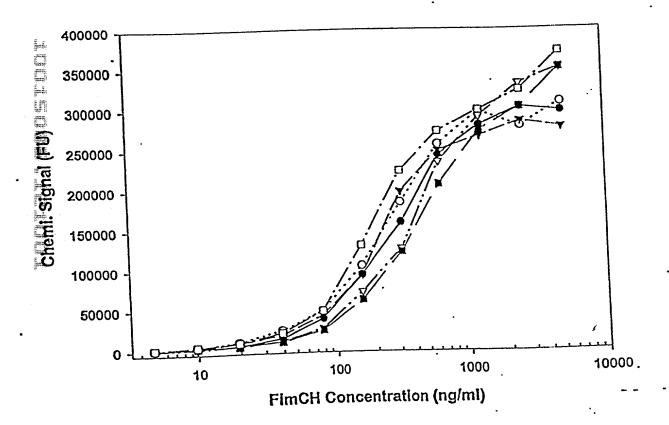


Figure 4 Sheet 10 of 36

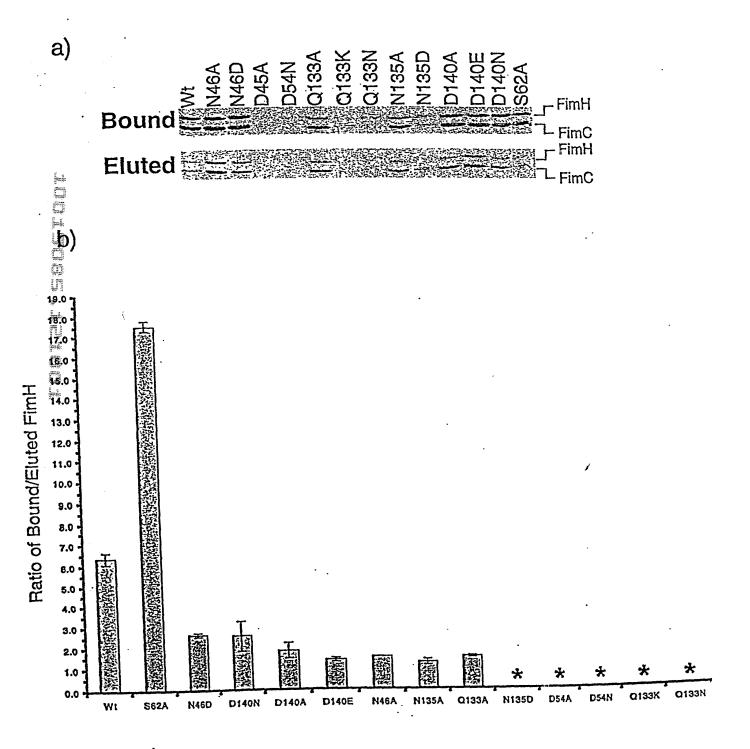
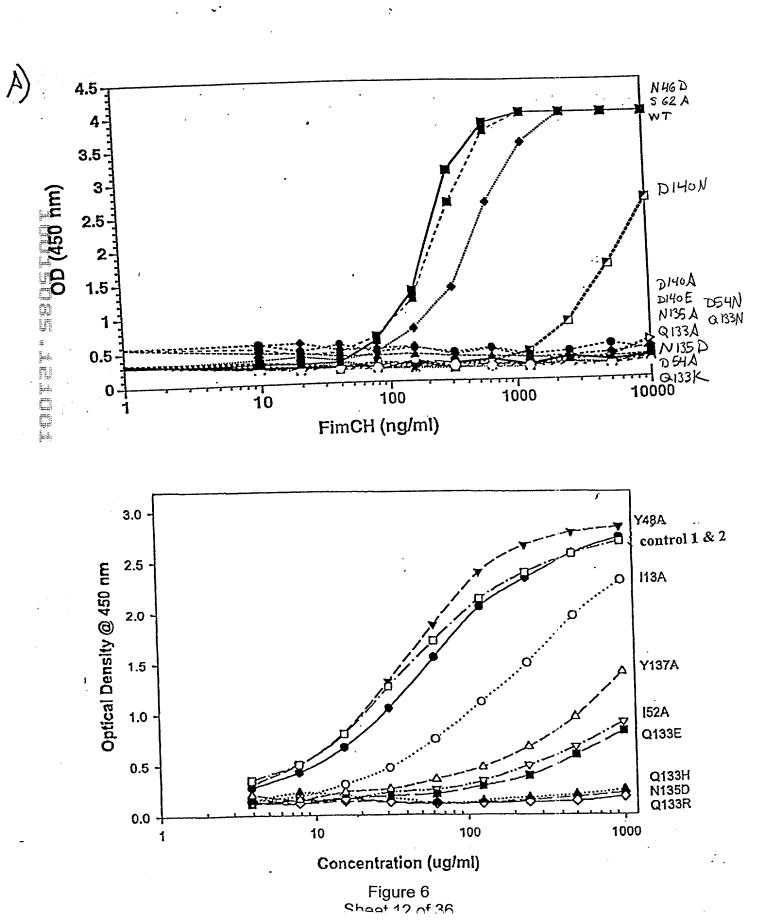
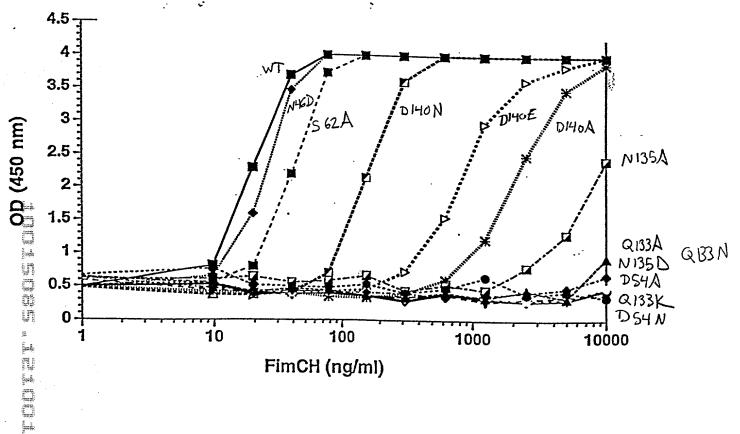
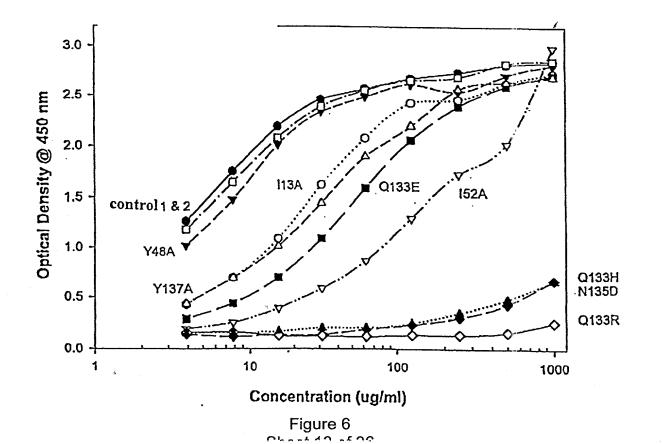


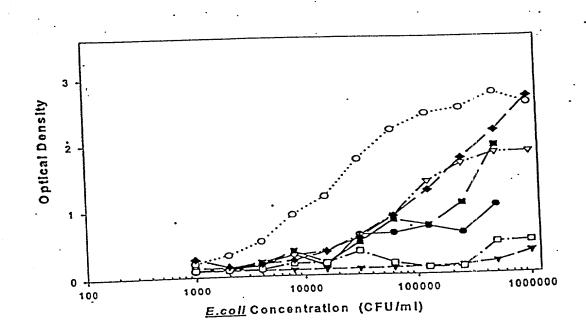
Figure 5 Sheet 11 of 36











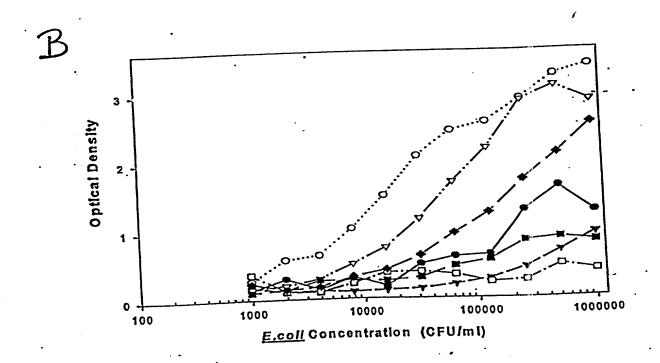
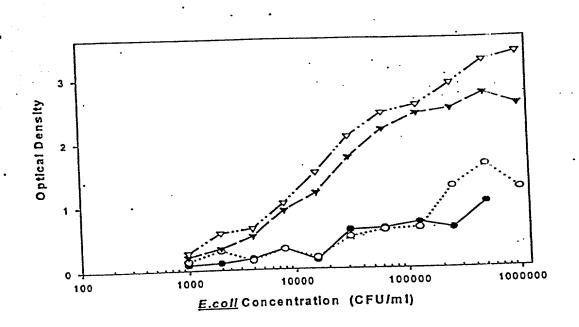


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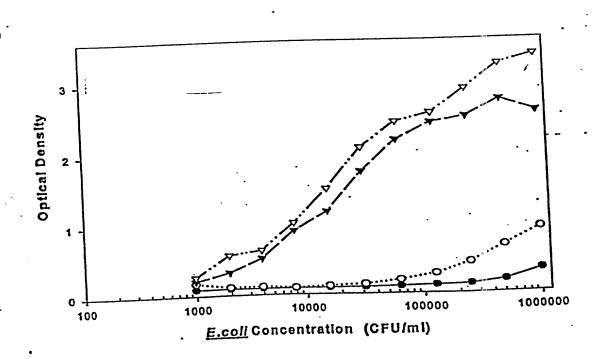
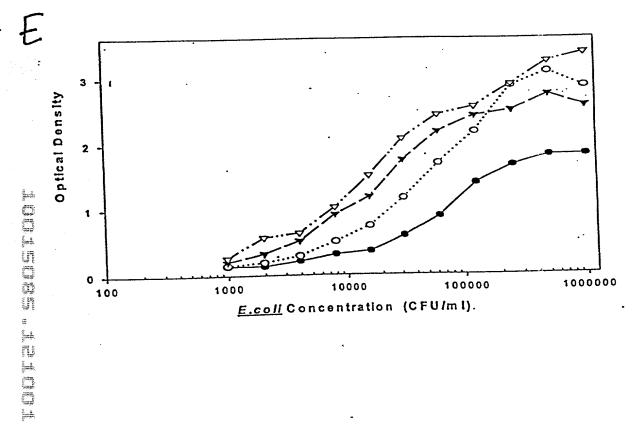


Figure 7 Sheet 15 of 36



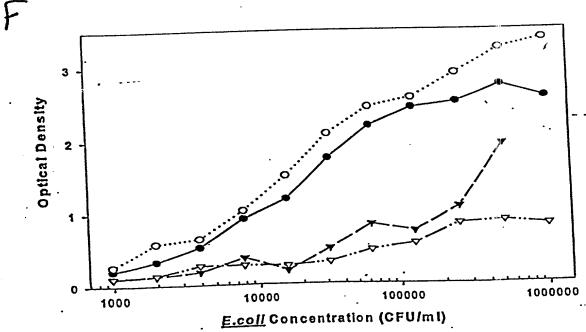
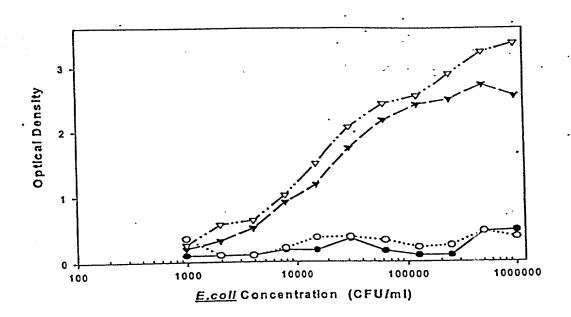


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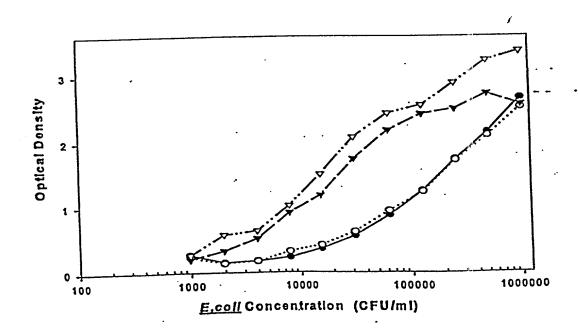


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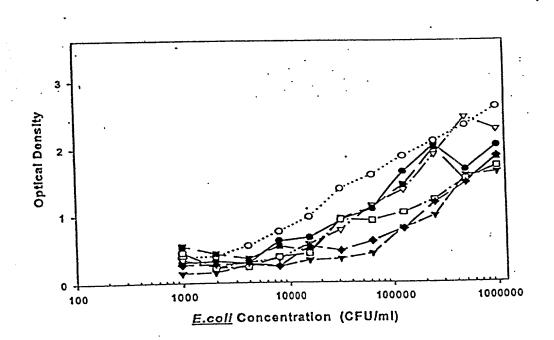
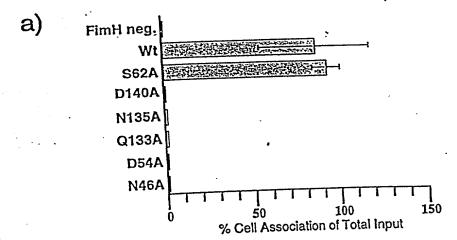
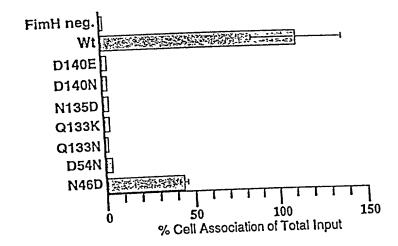


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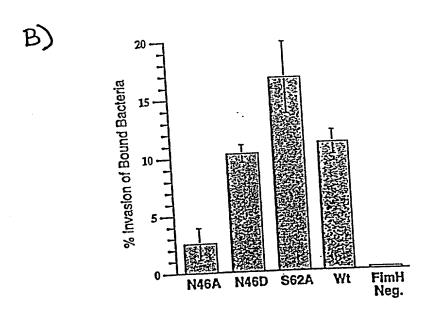


Figure 8 Sheet 19 of 36

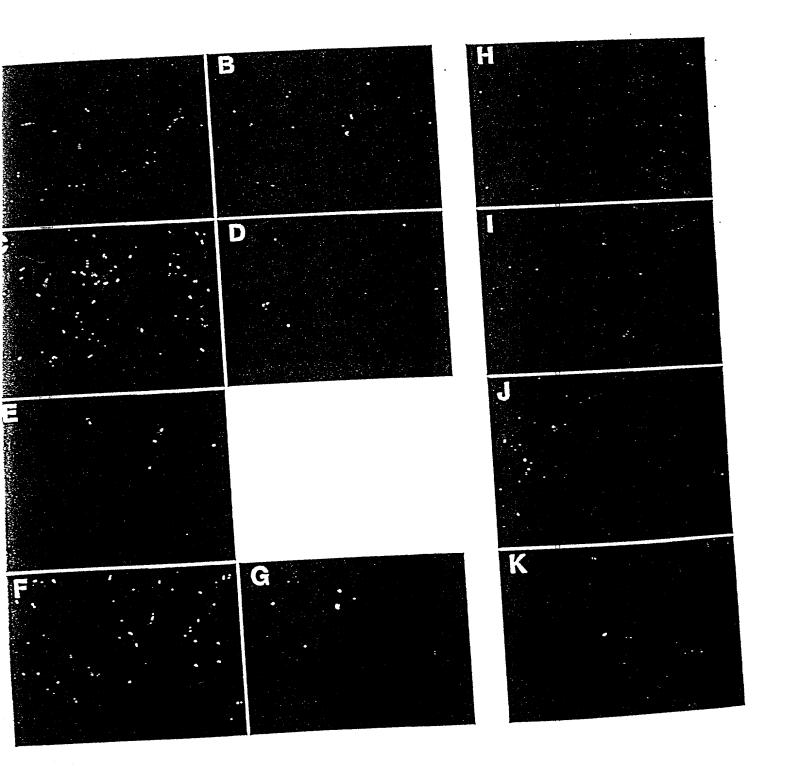


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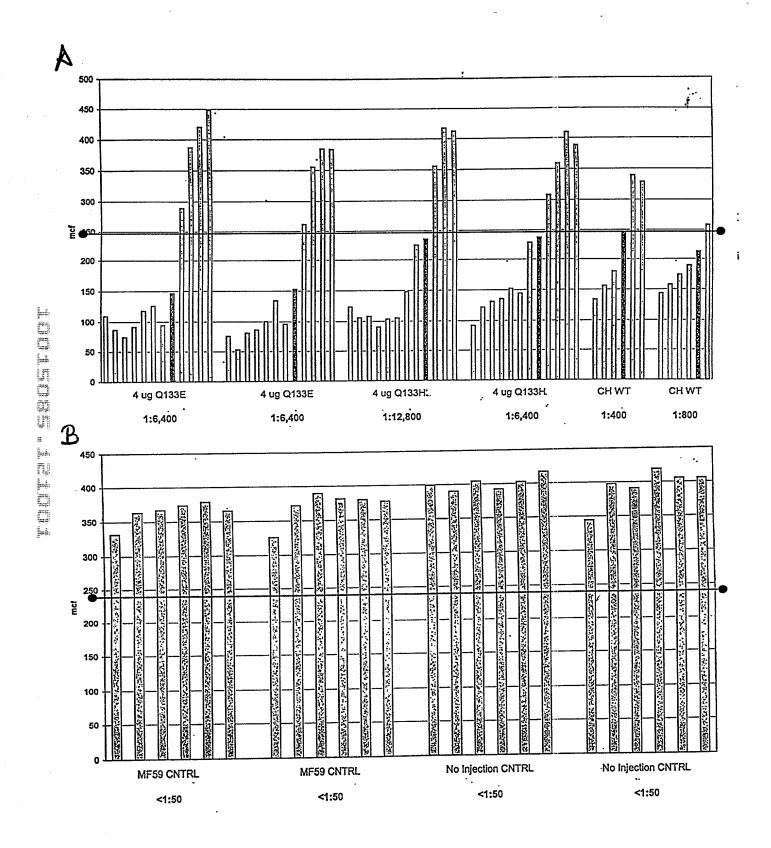
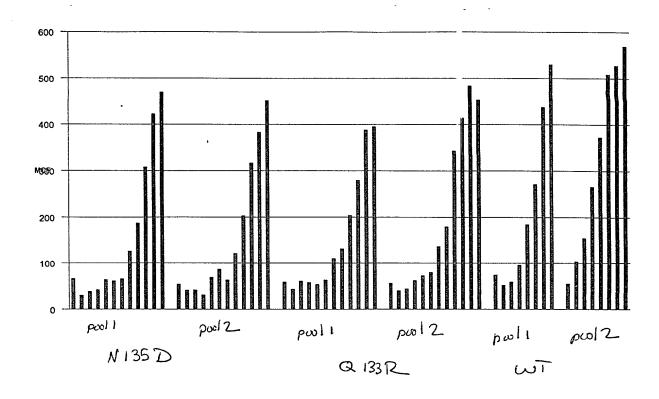


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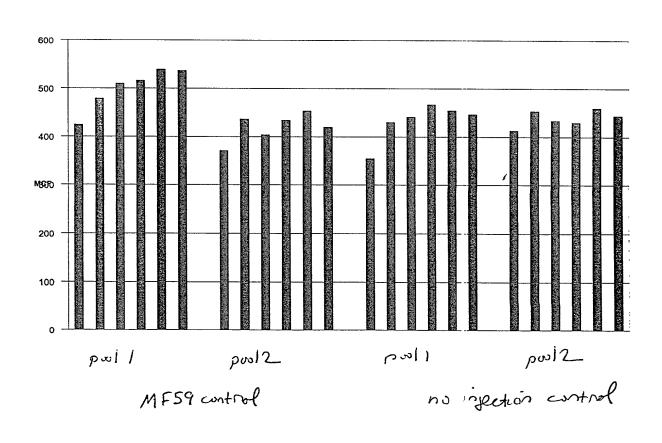


Figure 11 Sheet 23 of 36

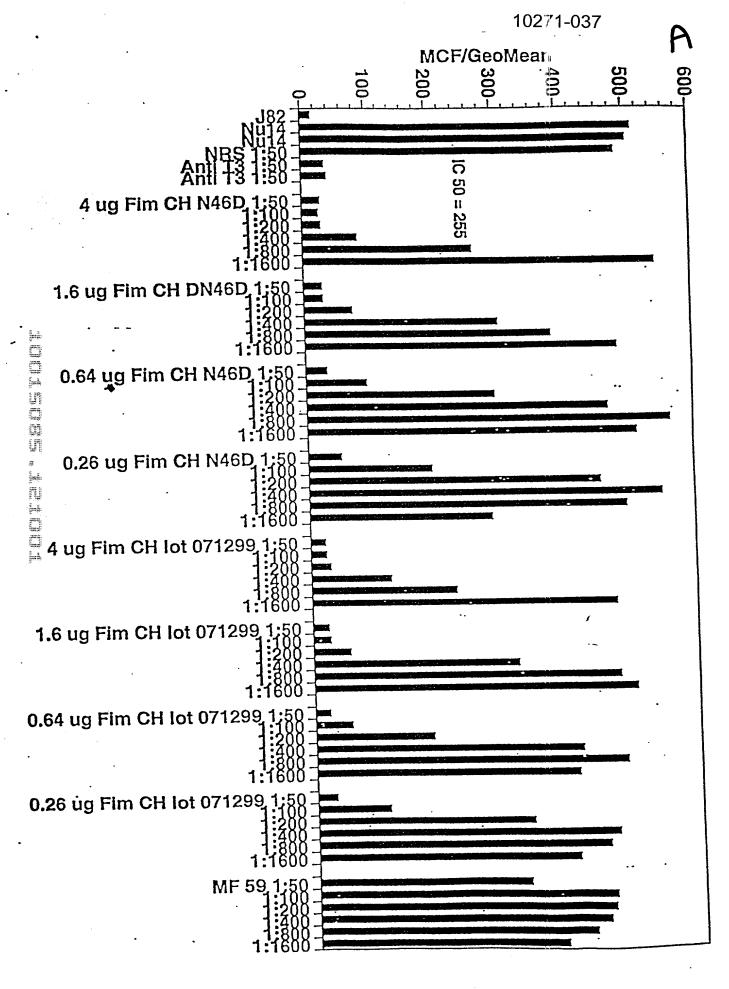


Figure 12 Sheet 24 of 36

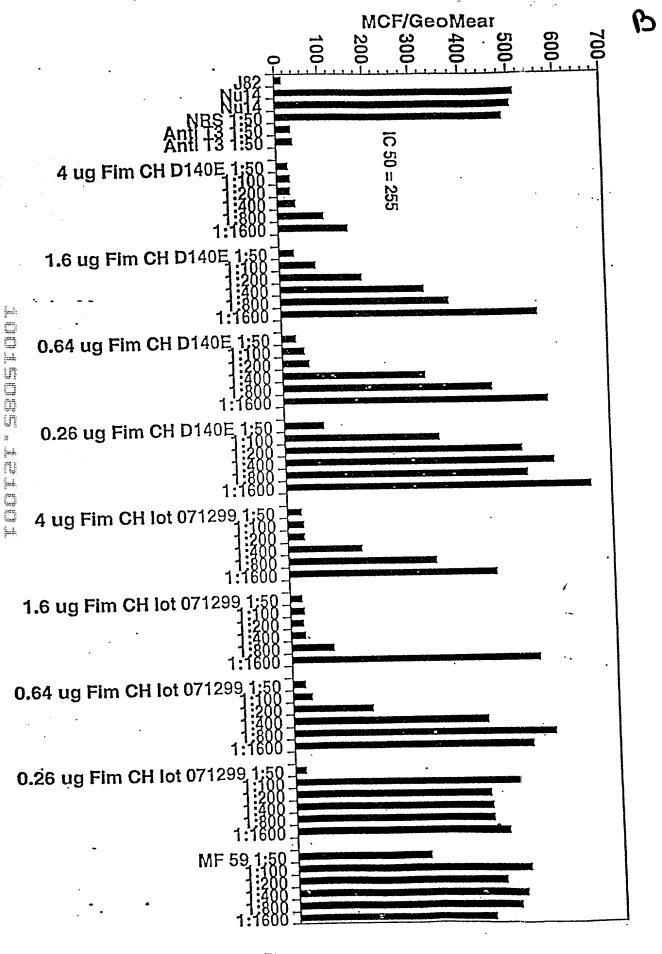


Figure 12 Sheet 25 of 36

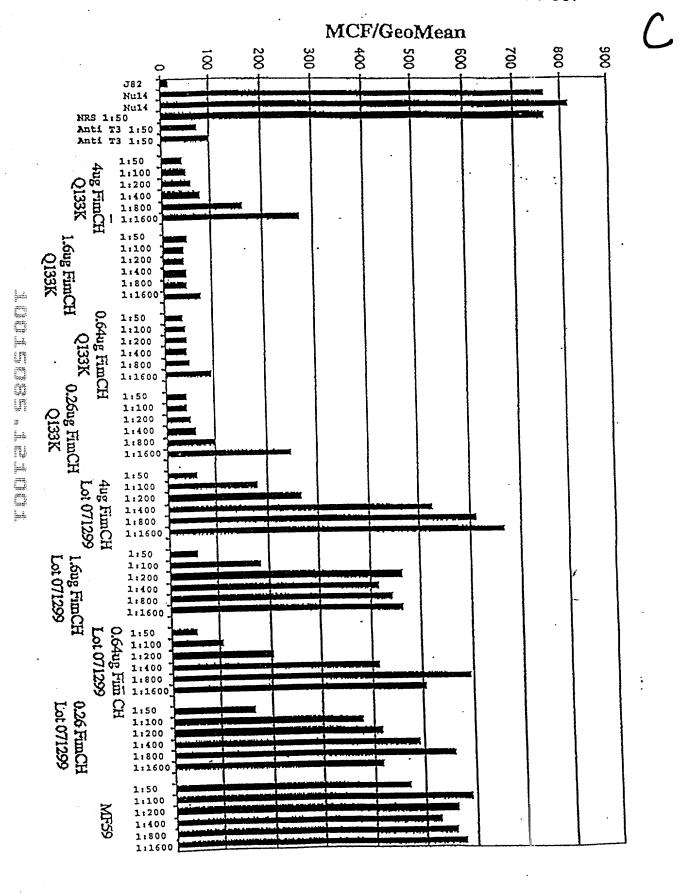


Figure 12 Sheet 26 of 36

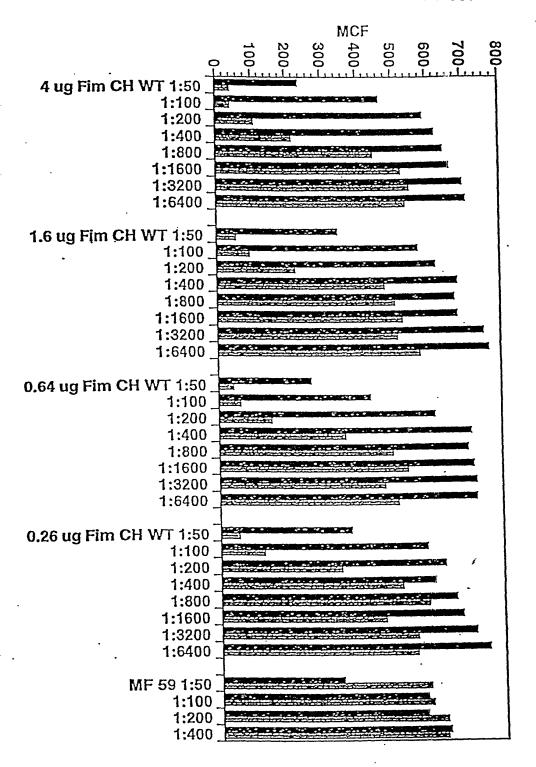


Figure 12 Sheet 27 of 36

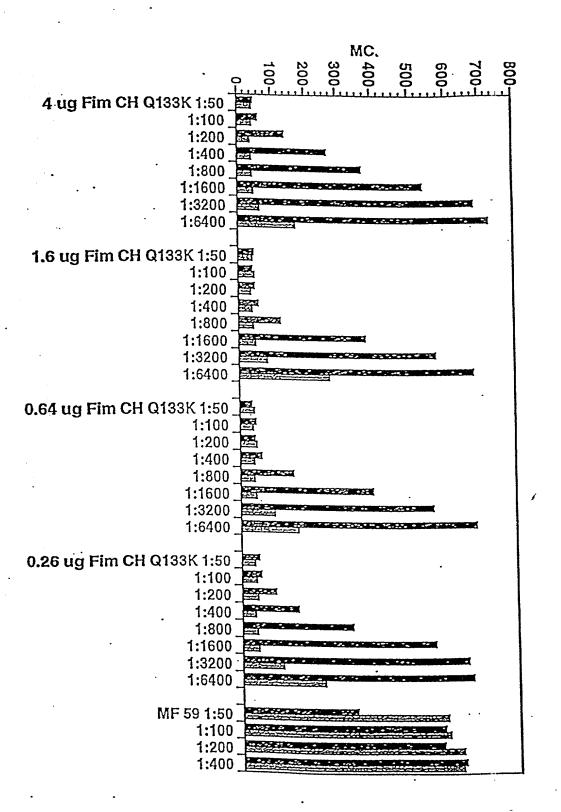


Figure 12 Sheet 28 of 36

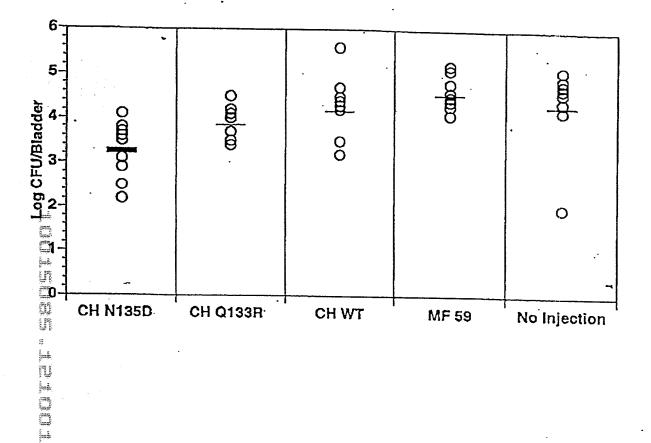


Figure 13 Sheet 29 of 36

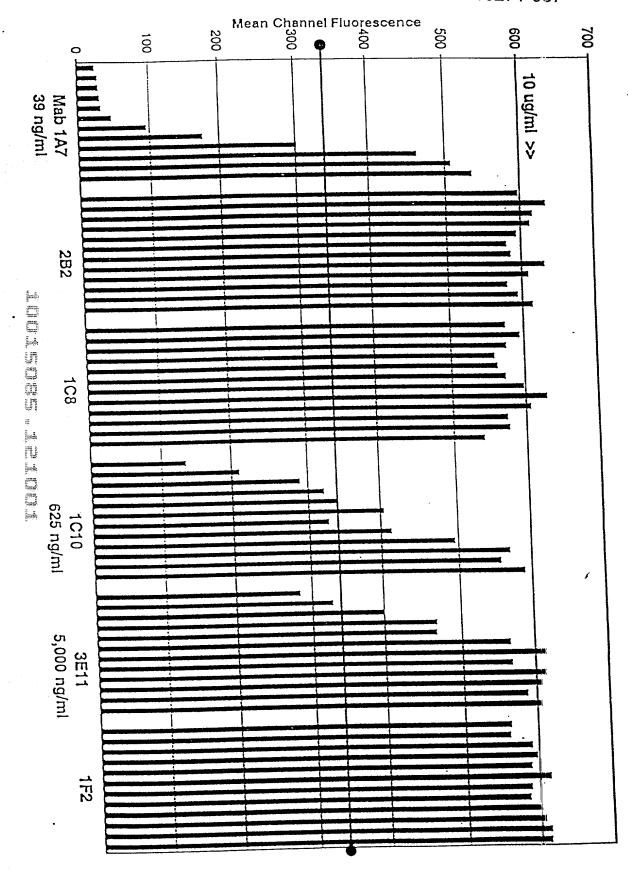


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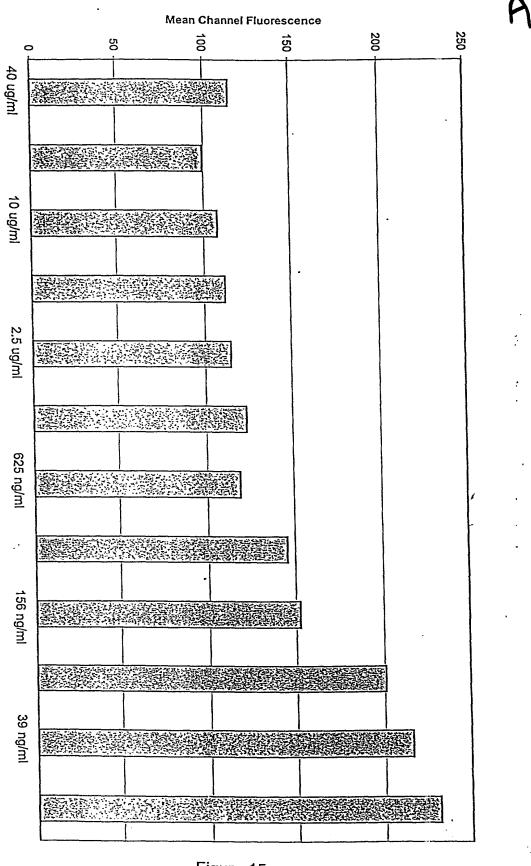


Figure 15 Sheet 31 of 36

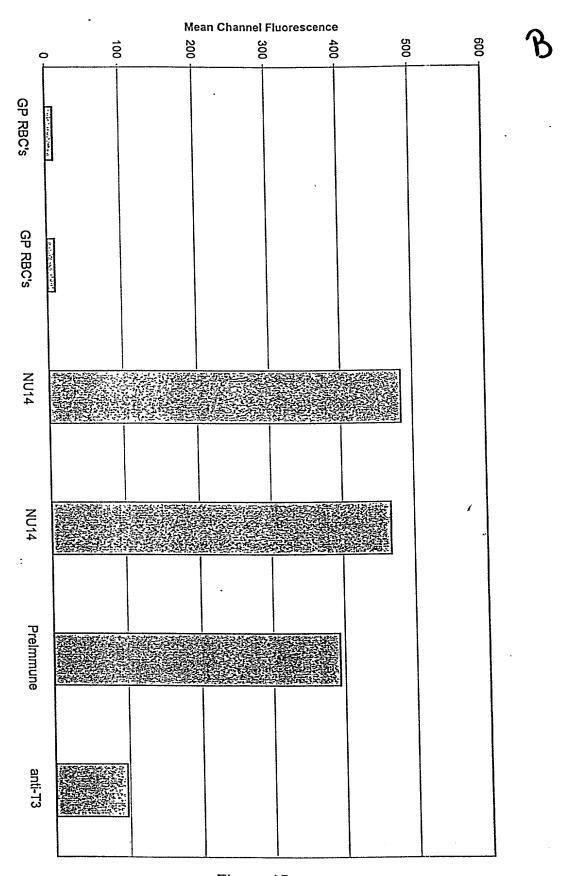


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Optical Density at 450 nm

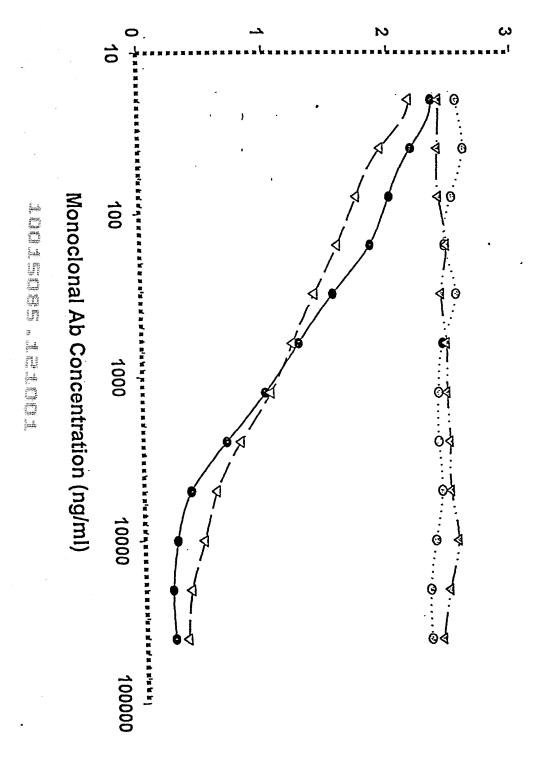


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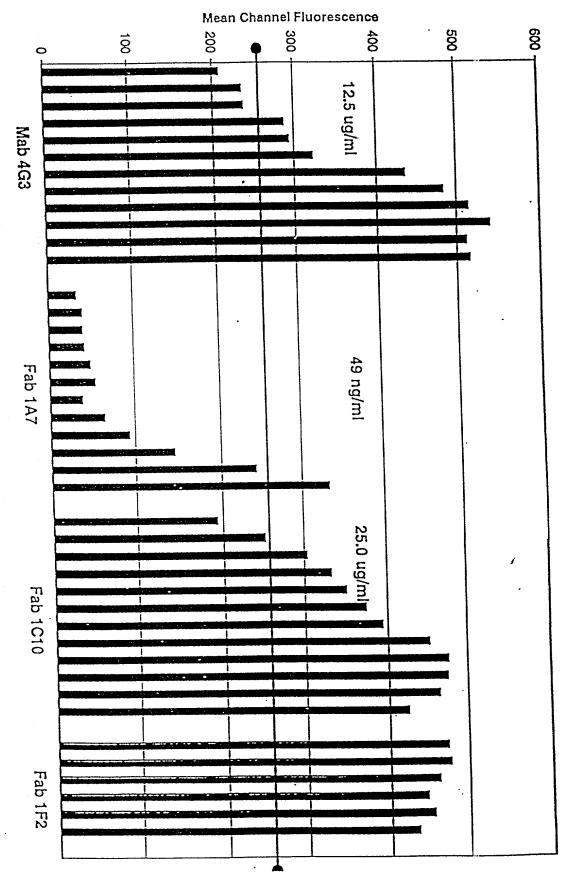


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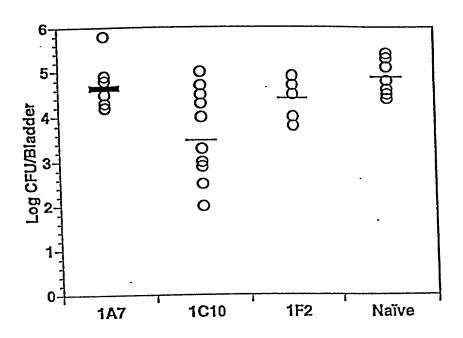


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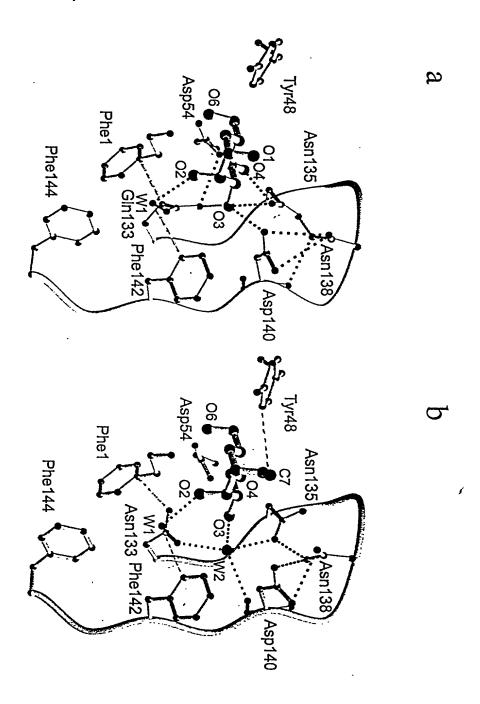


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